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OUR RAILROADS

BEING A

STATEMENT OF THE VALUE AND EARNINGS

OF THE

RAILROADS OF THE WESTERN STATES.

BY HARRY P. ROBINSON.

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Our Railroads.

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NORTHWESTERN RAILROADER.

AUTHORITIES QUOTED IN THE FOLLOWING PAGES.

Second Annual Report of the Inter-state Commerce Commission, 1888.

Report of the Statistician of the Inter-state Commerce Commission, 1889.

Reports of the Boards of Railroad Commissioners for the year 1889 of the states of Minnesota, Iowa, Kansas, Missouri, Michigan, and the Territory of Dakota.

Report of the Railroad Commissioner of Wisconsin, 1888.

Reports of the Board of Transportation of the state of Nebraska.

Report of the Assistant Secretaries of the British Board of Trade on the Working of British Railways, 1888.

Report to the U. S. Department of Agriculture, 1890.

Administration Report on the Railways of India, 1889-90.

Report of the Victorian Railway Commissioners, 1889,

Report of the Railway Commissioners of New South Wales, 1889.

Poor's Manual of Railroads, 1889 and 1890.

Annual report of the Directors of the Chicago and Alton Railroad, 1889.

Annual Report of the Chicago and Northwestern Railway Company, 1890.

Prof. A. T. Hadley, "The Railroads in their Business Relations."

INTRODUCTORY.

One of the immediate results of the publication of the first edition of this pamphlet was a sudden influx to the author of letters of enquiry. These letters came almost entirely from two classes of men—from railroad employes and from farmers, or, at least, residents in small towns and rural neighborhoods. The enquiries were for the most part of an elementary nature, such as "What is the difference between bonds and stocks?" "What does 'capitalization' mean?" and so forth. In view of this fact, readers who are more familiar with the subject matter of the railroad question will pardon the introduction of this very elementary preface.

The object is to show in the simplest form possible that there is nothing mysterious about the organization of a railroad company and the building of a railroad, and for this purpose an imaginary case is introduced. Each reader will please believe that this is not intended for his instruction, but for the instruction of some one else who knows much less than he does.

Let us suppose that two men start out, one to be a farmer and the other to build a railroad.

The farmer has $1,000 capital.	The railroad man has $1,000,000 capital.
The farmer receives from the government extraordinary privileges, by which he gets his land for nothing.	The railroad man receives privileges from the government and counties on his line by which he gets his land for right of way, etc., partly for nothing and partly very cheap.
The farmer's capital of $1,000 is then spent in fees, preliminary expenses, farm buildings, fences, breaking, etc.	The railroad man's capital of $1,000,000 is then spent in fees, preliminary expenses, surveys and building the first section, 50 miles, of road.
The farmer needs more buildings and machinery,	The railroad man needs more road, terminals and equipment,

So he borrows $1,000 more and mortgages his farm to get it, and gives his note—	So he borrows $1,000,000 more and mortgages his road to get it, and issues bonds—

WHICH IS A BONDED DEBT.

The farmer has to go to a professional money lender for his $1,000, who only gives him $850 and makes him pay interest at 8 per cent. on the whole $1,000, or $80 a year—	The railroad man has to go to a professional floater of railroad securities to get his $1,000,000, who only gives him $850,000, but makes him pay interest at 8 per cent. on the whole $1,000,000, or $80,000 a year—

WHICH INTEREST IS A FIXED CHARGE.

The farmer puts up barns and buys machinery with his $850, besides breaking more land.	The railroad man puts up stations and buys equipment with his $850,000, besides laying some more track.
Then he works his farm for a year.	Then he operates his railroad for a year.
There is now an investment in the farm of $2,000, of which $1,000 is capital and $1,000 is in the mortgage.	There is now an investment in the railroad of $2,000,000, of which $1,000,000 is capital and $1,000,000 is represented by bonds.
As a result of the first year's work the farmer gets $580 profit from his farm.	As a result of the first year's operation the railroad man gets $580,000 profit from his railroad.
Of this, $80 goes to pay interest.	Of this, $80,000 goes to pay interest.
The other $500 is a profit of 50 per cent. on his original capital—	The other $500,000 is a profit of 50 per cent. on his original capital—

WHICH PROFIT IS DIVIDENDS.

But instead of taking this $500 for his own use, he puts it back into the farm	But instead of taking this $500,000 for his own use, he puts it back into the railroad
And buys live stock with it.	And buys rolling stock with it.
This increases the capital investment to $1,500.	This increases the capital investment to $1,500,000
The second year, owing to hard times and low prices, he fails to get any profit from his farm.	The next year, owing to hard times and low rates, he fails to get any profit from his railroad.
But the interest must be paid, and he needs money to go on with,	But the interest must be paid, and he needs money to go on with,
So he borrows $500 more,	So he borrows $500,000 more,
And mortgages his extra buildings and live stock to get it,	And mortgages his extra buildings and rolling stock to get it,
Which increases his bonded indebtedness to $1,500	Which increases his bonded indebtedness to $1,500,000
And his annual interest to $120.	And his annual fixed charges to $120,000.
The third year he makes just $120 profit,	The third year he makes just $120,000 profit,
Which all goes in interest on his mortgage,	Which all goes in interest on his bonds,
And he gets no return for himself on his own capital.	But he gets no dividends for himself on his own capital.

The fourth year prices are worse than ever, and he comes out at the end of the year with a net loss.

He cannot pay his interest and the holder of his mortgage forecloses,

And the farm is sold at auction—

The fourth year rates are worse than ever, and he comes out at the end of the year with a net loss.

He cannot pay his interest and the holders of the bonds apply for a receiver,

And the railroad is sold at auction—

WHICH IS BANKRUPTCY.

Now when the farm was sold for what it would fetch it represented an investment of $3,000, of which $1,500 was original investment and $1,500 was represented by the mortgage.

When the railroad was sold for what it would fetch it represented an investment of $3,000,000, of which $1,500,000 was capital invested and $1,500,000 was represented by the bonds.

In the case of the railroad, instead of one man having a capital of $1,000,000 to start with, it is usually subscribed by, say, one hundred men who have $10,000 each, when each possesses one one-hundredth of the stock, and all together are the stockholders of the company.

When a farmer (or other man) is told that railroad capital does not deserve to earn any dividends, he has only to refer to his own case and consider whether he himself is entitled to any profit on his investment in his farm or business.

And when a farmer or other man is told that all that a railroad company earns in excess of operating expenses is "profit," and that if it earns interest on its bonds that is as much as it deserves, he has only to think if in his own case he considers the money which has to go in interest on his mortgage as "profit," or if, when he earns barely enough to pay that interest, that is as much as he deserves.

Finally, the author wishes to call attention to the fact that the figures and statements in the following pages are not in any sense of his own manufacture. They are quoted entirely from the only authoritative sources. The writer is not advancing "estimates" or evolving theories of his own. He has but collated and laid before the reader the facts as they are found in these various official documents, and which, as facts, are not open to question, leaving the public to use its own judgment in passing upon the significance of those facts.

"Take nothing for granted upon the bare authority of the author; but weigh and consider, in your own mind, the probability of the facts and the justness of the reflections. Consult different authors upon the same facts, and form your opinion upon the greater or less degree of probability arising from the whole."

OUR RAILROADS.

The railroads of the world are to-day worth from $25,000,000,-000 to $30,000,000,000. This probably represents one-tenth of the total wealth of civilized nations and one-quarter, if not one-third of their invested capital. It is doubtful whether the aggregate plant used in all manufacturing industries can equal it in value. The capital engaged in banking is but a trifle beside it. The world's whole stock of money of every kind—gold, silver and paper—would purchase only a third of its railroads.—A. T. Hadley in "Railroads in Their Business Relations."

In the above paragraph Professor Hadley places before the mind, in a striking and picturesque form, the magnitude of the railroad interests of the world. As his words were written some years ago, however, the higher of the two figures which he gives may safely be taken as the nearer to the truth to-day.

Professor Henry C. Adams, the official statistician to the Interstate Commerce Commission, in his second annual report, advance sheets of which have been distributed, though the full report has not yet been issued,* says that on June 30, 1889, the number of miles of railroad in the United States was 157,758. The aggregate capitalization and funded debt of this mileage was $8,573,000,000.

The total railroad mileage of the world has been calculated to be 361,886 miles.† The United States contain, therefore, approximately three-sevenths of the railroad mileage of the world.

It is a remarkable fact that until two years ago the government of this country had not provided any adequate machinery for the collection and presentation of the statistics relating to

* The full report has this week been issued, November 10th, 1890.

† Report to the United States Department of Agriculture on "the Substitution of Metal for Wood in Railroad Ties," p. 292.

these vast interests. Almost all the governments of the world had seen the necessity of doing this and had entered upon it, but the United States gave it no attention. There has been no way by which the truth of the railroad question in its larger aspects could be arrived at. The interested politician or the railroad attorney has been able to advance what statements he pleased without fear of refutation, as there was no official authority on which any statement in refutation could be based.

The twentieth section of what is generally known as the Interstate Commerce Act authorizes the Interstate Commerce Commission "to require annual reports from all common carriers subject to the provisions of this act," and further provides that such reports "shall show in detail the amount of capital stock issued, the amounts paid therefor and the manner of payment for the same; the dividends paid, the surplus fund, if any, and the number of stockholders; the funded and floating debts and the interest paid thereon; the cost and value of the carrier's property, franchises and equipment; the number of employes and the salaries paid each class; the amounts expended for improvements each year, how expended, and the character of such improvements; the earnings and receipts from each branch of business and from all sources; the operating and other expenses; the balances of profit and loss; and a complete exhibit of the financial operations of the carrier each year, including an annual balance sheet."

In his first report, issued in the spring of 1889, the statistician to the commission himself commented upon the curious absence of information up to that date: *

"The length of line (in the United States) on June 30, 1888, was 152,000 miles, and the property based upon it did not fall far short of $9,000,000,000. The gross earnings on this property for the year preceding were nearly $930,000,000. Passenger mileage reached the enormous figure of 1,500,000,000, while ton-mileage of freight exceeded 60,000,000,000. * * * * An industry of such magnitude must of its own merit arrest public attention, but when it is recognized that every other industry in the land is dependent for its highest success upon the way in which the railways are conducted, the

* Page 237.

absence of trustworthy and comprehensive statistics on railway affairs is indeed occasion for surprise."

The standard authority on railroad statistics in the United States, before the establishment of the commission, had been *Poor's Manual of Railroads*, an excellent and laboriously compiled work, but which had not carried, and could not carry, however accurate it might be, the weight which will henceforward attach to the official reports of the statistical department of the Inter-state Commerce Commission. As a matter of fact, a comparison of the results arrived at in *Poor's Manual* and in the reports of Professor Adams shows that the former might safely have been trusted, and have been accepted as authoritative, with more confidence than was ever extended to it. Such divergence as there is between the conclusions arrived at and the figures given in the two volumes is a divergence comparatively of small detail. The following comparison shows how nearly they coincide:

	Inter-state Com. Commission.	Poor's Manual.
Miles of railroad	157,758	160,544
Capital stock	*$4,251,190,719.00	$4,495,099,318.00
Funded debt	*4,321,856,023.00	4,828,365,771.00
Stock and debt per mile	*55,898.00	58,077.00
Percentage of unproductive stock..	61.67	62.21
" " " bonds..	18.19	18.73

Whenever possible, in the following pages, the figures of the Inter-state Commerce Commission are used as being official. On points which the report of the commission does not touch, the figures of *Poor's Manual* are used. With the information contained in these two volumes, supplemented by the reports of the various state commissions, it is possible now to arrive at conclusions as to the present earning power of railroads in the United States, and in the Western and Northwestern states, which are not conjecture—as virtually all conclusions advanced previously to the last two years must have been—which are not matter of estimate—which can not possibly be suspected of being distorted by prejudice or partiality.

*On 153,385 miles of road which made reports.

The importance to the public interests of having these conclusions of fact plainly set forth and established cannot easily be overestimated. No intelligent public treatment of the railroad problem can be reached without such knowledge. With such knowledge once in the possession of the public—of the legislators, public officials, business men, and writers on the daily press—it ought not to be difficult to arrive at such an adjustment of the rights and responsibilities of the railroads in their relations to the state and the citizen as will best promote the interests of the country.

To quote a writer on a daily paper:—"The people do not propose on the one hand to suffer themselves to be wronged by any oppressive or unjust acts of extortion on the part of the railroad companies; nor, on the other hand, do they propose that the railroad companies should be wronged by unjust and confiscatory legislation. What they want is simple justice for themselves and for the railroads. That is all they want. They know very well that hostile legislation which seeks to destroy the value of railroad property must result in immense harm to public interests. They do not want to place their interests, therefore, in the hands of the enemies of railroad corporations—of men whose only aim is to cripple and destroy them—but of men who are broad enough to do justice to both the people and the railroads."

The people, if, as one party claims, the corporations are enjoying too large privileges or are abusing their great powers, desire and demand such legislation as will secure to society its rights against the encroachments of monopoly. And if, as is claimed on the other side, the corporations are already burdened beyond the limit of justice and beyond the point where the earning of reasonable returns upon investment is possible, then the people know that any further legislation adverse to the railroads will and must injure the community as a whole out of all proportion to any benefit that it can confer on any one class of the people.

What is the situation, then? What are facts? Is there need of more anti-railroad legislation, or has there already been too much?

Before entering into a discussion of the figures upon a consideration of which a solution of the above questions only can be reached, it is worth while to note a remark of the Inter-state Com-

merce Commission's statistician included in his first report* above referred to. Prof. Adams, more than any other man in America, had had the opportunity of arriving at a just estimate of the financial condition of the railroads of America, and of the right attitude of society towards them. The conclusion at which he arrived, was that "it is more than likely that, if the facts pertaining to railroads be properly collected, massed and interpreted, the demand for a very considerable increase of legislation which would otherwise be necessary will disappear."

As being the well considered judgment of the statistician of the Inter-state Commerce Commission, based upon the first approximately complete official statement of the condition of the railroad properties of the country which had ever been collected, this conclusion is significant.

THE RAILROADS OF THE UNITED STATES.

We have quoted above the figures of the Inter-state Commerce Commission showing that the railroad mileage of the whole country on June 30, 1889, was 157,758 miles. The total capitalization and funded debt of all roads reporting, viz., 153,385 miles, were $8,573,046,742. This is an average of stock and debt of $55,898 a mile.

The great question to be settled, then, is, does this immense capital earn too large revenues, or does it not? The consideration which meets us at the very outset is the question as to what actual investment of capital these liabilities represent. What, in fact, is the amount—if any—of over-capitalization? This matter will receive more attention later on. For the present, let us see what the returns are on the stock and bonds themselves.

The total amount of money paid in the whole country as dividends on stock in the year 1889, was $82,110,198. The total amount paid as interest on funded debt was $213,173,672.

The dividend payments were an average of 1.91 per cent on all common stock, and 2.11 per cent on all preferred stock, or an average of 1.93 per cent on the total of stock of all kinds.†

* Page 33.

† Statistics of Railways of the United States (Inter-state Commerce Commission) p. 29.

The interest was an average of 4.9 per cent on all bonds. The average of returns on all securities was 3.43 per cent.

In the first statistical report June 30, 1888,) of the Inter-state Commerce Commission was given a table* of all classes of stocks and bonds, with the rate of dividend or interest paid on each. Of the $6,976,271,156 of total capital and debt (on 120,-000 miles of road), $2,500,000,000 were in 1888 absolutely un-productive. On $2,500,000,000 worth of securities, or more than one-third of all, there was no return paid at all.

In the second report (for the year ending June 30, 1889,) a similar table is given which shows an increase in the amount of these unproductive securities of over $800,000,000. The total amount of stock and bonds on which no returns were paid was $3,397,291,587. Of this amount $2,621,497,932 were stock and over $775,000,000 were bonds—or 18.19 per cent of all the bonds of the railroads of the country drew no interest, and 61.67 per cent of the stock paid no dividends.

Considerably more than one-third, very nearly two-fifths, of the entire investment in the railroads of the United States was in the year 1889 absolutely unproductive of revenue.

In the year 1886 *Poor's Manual* showed that 58.12 per cent of the stock on all lines of the country were unproductive, and 10.88 per cent. of the bonds. Since then—that is in three years—the increase in the proportion of unproductive securities has been 3.55 per cent. of the whole amount of stock, and 7.11 per cent. of the whole amount of bonds of the country.

The last edition of *Poor's Manual*,† however, for the year ending June 30, 1889, gives the following table of the percentage of returns on the railroad investment of the country:

YEAR:	1884	1885	1886	1887	1888	1889
Interest on bonds, p. ct...	4.66	4.77	4.75	4.71	4.35	4.38
Dividends on stock..........	2.48	2.02	2.04	2.18	1.77	1.77
Total payments, stock, bonds and debt.............	3.52	3.36	3.26	3 40	3.03	3.07

This is to say that during three years the decrease in income to the holder of securities has been 15 per cent. Also the capital stock and debt per mile of road have decreased in the same

* Second annual report of the Inter-state Commerce Commission, p. 254.

† Poor's Manual of Railroads for 1890, p. iv. The divergence of the figures of the Manual from that of Prof. Adams has already been commented on.

length of time from $59,391 in 1884 to $58,977 in 1889. If the stock and debt per mile of road were as great to-day as they were six years ago, the total liabilities of the railroads of the country would be two hundred million dollars greater than they are, or $199,351,376, and the percentage of returns would be proportionately smaller than even is the case.

With nearly three and one-half billions of securities entirely unproductive of revenue, it is not surprising that the statistician of the Interstate Commerce Commission should ask, "what is the meaning of it?"

Here, then, we have seen that more than one-third of the railroad stock and bonds are unproductive, and that the average of returns in all is 3.4 per cent. The question is, is this a condition which shows an unreasonable rate of profit? Is this a larger revenue than the ordinary business man—merchant, banker, farmer or manufacturer—expects to make or does make upon the capital invested in his business? Is it larger than the law allows as reasonable interest?

Now, touching for a moment on the subject of over-capitalization, let us see how this showing compares with that of the railroads in other countries.

The total of stock and debt on all lines in this country is shown by the statistician of the Inter-state Commerce Commission, as already noted, to be *$55,898 a mile.

In Great Britain, the average is $193,000 a mile. While in this country 150,000 miles of road have to earn returns on eight and one-half billions, in Great Britain 20,000 miles have to earn returns on nearly four billions. And they do earn returns of 4.07 per cent., as against the 3.43 per cent. in this country.

And while the capitalization per mile in this country is only one-fourth that of Great Britain, it is two-fifths that of the railroads of France, and about one-half that of the railroads of Germany.

But the comparison with the railroads of European countries may not be a fair one as the conditions are so different. There are other countries, however, where the analogy is closer and with which a comparison may fairly and instructively be drawn.

Turning to Australia, in New South Wales the govern-

* This does not include "current liabilities," but only funded debt.

ment has owned the railroads from the very first. Here, if anywhere, there should have been a chance for cheap railroad construction. "The country offered no serious obstacles. The land was to be had cheap. No special effort was made to avoid grades by cuttings or tunnels. The lines were not constructed for heavy traffic or hard usage. There are practically no fast trains. Only 79 miles out of a total of 2,200 are double track."* Yet in spite of all these advantages, the average cost per mile of road in New South Wales is given as $68,000 against $55,898 a mile in this country.

In Victoria,† the "total spent in construction" has been an average of $70,900 a mile. The returns on this for the year were 3.73 per cent. The commissioners explain, however, that a large portion of this expenditure was on uncompleted lines not yet operated, and the average of returns on all capital invested in completed lines was 4.40 per cent. The railroads here are all built directly by the government and owned by the government. All contracts for construction are let to the lowest bidder, and no such accusation as that $70,900 is not the lowest possible figure at which the roads could be built has, we believe, ever been made.

Turning then to India,‡ the 16,300 miles of railroad on the Indian peninsula cost to construct $81,085 a mile, as against $55,898 in this country. In the year 1888 the railways of India earned 5.32 per cent., and in the year ending May 20th, 1890, they earned 4.93 per cent. on their investment, as against 3.43 per cent. in the United States.

It should be remembered that in all these countries both the construction and operation of the railroads are conducted either more or less directly under governmental supervision or under immediate government ownership. The possibility of inflation of capital by individuals and corporations in most of them does not exist. The figures given above are the figures of actual cost and as such are not open to question. At the same time,

*It should perhaps be explained that the figures of mileage, viz., 157,758 as the total of the U. S., do not include anything but main track. It is the mileage of road, not of tracks. There are over 50,000 miles of second and third and fourth tracks, of spur and side tracks, of which no account is made in any calculations.

†Report of the Victorian Railway Commissioners for the year ending June 30th, 1889.

‡Administration Report of the Railways of India for the year 1889.

with very much larger capitalization or investment to earn returns upon, the rate of returns earned is also larger. This is achieved by the sole plan of charging higher rates. It is impossible here to give a detailed comparison of rates in this country and in others, but it may be stated generally that while in some countries the rates of third (or whatever may be the lowest) class of passenger travel are lower than the passenger rates in this country, all other rates, both passenger and freight, are higher.*

Let us now turn from the country at large to the West, Southwest and Northwest, and see how our railroads here compare with those in the Eastern and Northern states in their capitalization and earning power.

THE RAILROADS OF THE WEST.

The Inter-state Commerce Commission has made no comparison of different states or sections of the country. The following figures are from *Poor's Manual* for the year ending June 30th, 1889. The statement of capitalization and debt per mile of road on the lines of the country grouped geographically is as follows:

	Capitalization and debt per mile of road
New England group	$56,422
Middle group	119,121
Central Northern group	52,073
South Atlantic group	40,041
Gulf and Mississippi Valley group	52,691
Southwestern group	45,063
Pacific group	59,927
Northwestern group	48,319

The average for the whole country has been said to be †$58,077, so that the capitalization and debt of the Northwestern lines is less than the average throughout the country by nearly

*The average of rates charged in England to-day is more than double the average in the United States. The latest Act of Parliament in which any specific rate is provided for transportation is that of 1883, in which it is provided that government material and "War Office Stores" shall be transported at a charge not exceeding four cents a mile. The average of earnings per ton per mile in the United States last year was 0.97 cents. The latest act in England fixing passenger rates provides for a maximum of 6 cents for first class, 4 cents for second class, and 2½ cents for third class. The average in the United States for the year 1889 was 2.17 cents.

† According to the Inter-state Commerce Commission, $55,898.

$10,000 per mile, or $9,758. The capitalization and debt of the Southwestern lines is $13,000 a mile below the average.

Having thus much smaller investment (or liabilities) to earn returns upon, it might reasonably be supposed that the percentage of returns would be larger than the average. As a matter of fact *Poor's Manual* shows that the average payment on the capital stock and debt of the Northwestern lines was in the year 1889 only 2.71 *per cent.*—as against *3.07 *per cent.* for the country at large—and on the Southwestern lines only 2.16 per cent.

If we analyze these figures still further, we come to facts yet more significant.

It is obvious and well understood that, when earnings are reduced below what may be called the line of normal prosperity and before actual bankruptcy is reached, the burden of loss must fall principally upon the stockholders. The operating expenses have to be paid. Economy and retrenchments can reduce them to a certain extent, but the limit of elasticity is soon reached. Similarly with the fixed charges,—taxes and the interest on bonds must be paid if the money to do it can possibly be acquired or very disagreeable consequences will ensue. The real index to the prosperity of any given group of railroads—the evidence as to what they are earning above the necessaries of life—is to be sought in the dividend payments. The average dividend payment on stock of the Northwestern lines in 1889 was 0.49 per cent. or *less than one-half of one per cent.* against an average of 1.77 per cent. over the whole country. The total amount of this capital stock on all the Northwestern lines was $409,208,838. Any person who was so fortunate as to have a fortune of $100,000 worth, face value, of that stock, in the year 1889, received on it as an income to live upon just $490.

On the Southwestern lines the average dividend payment on stock was 0.72 per cent., or something less than three-quarters of one per cent. The total amount of stock on this group of lines was $693,610,736. A fortune of $100,000 of that stock produced $720 as an income.

The combined mileage of these two groups was 51,430 miles, almost exactly one-third of all the railroad in the country. The total amount of their combined dividend payments was less than

*According to the Inter-state Commerce Commission, 3.40 per cent.

one-eleventh of that paid in the whole country, or in proportion of 7 to 79½.

The New England group of lines, with only 6,926 miles of road, paid in dividends just 50 per cent. more money than did the combined Northwestern and Southwestern groups, with 51,430 miles of road.

The Middle group of lines include 19,243 miles of road. The capitalization of these 19,243 miles was almost exactly the same as the capitalization of the 51,430 miles of road in the combined Northwestern and Southwestern groups, viz: $1,090,580,000, and the amount of money paid in dividends was almost precisely four times as large.

In 1888 "the average percentage of dividends paid on railroads in New England in 1888 was 4.56 per cent, in the Northwestern states 0.52 per cent. This," remarks *Poor's Manual*, "shows the difference between the results produced by Eastern and Western state legislation relative to railroads."

But these comparisons might be carried on almost indefinitely, showing results fully as startling—for they *are* startling—as these at every turn. The temptation to continue them is very great, for these facts will be something of a shock to the average reader who has been accustomed to hear only the socialistic or granger misrepresentation of the railroad question, and they can hardly be too distinctly stated or in too many forms.

One more statement on this line, however, is all that we will make.

On the lines in the Northwestern group in the year 1889, over 80 per cent. of the stock was absolutely unproductive, (against 61.67 per cent. for the country at large.) That is to say, that of the $409,000,000 of stock in these lines, the holders of $327,-000,000 derived no income whatever from their investment.

Whether or not there is need of legislation to further reduce these inordinate profits, is a question for the public to decide.

Nor was this lamentable showing in any way to be attributed to faults in the management of the roads. So far from that being the case, it is a curious fact that in no other group were the operating expenses cut down to so low a basis as in the Northwest. Owing to extraordinary conditions which render the operation of some of the lines in the Southwest very expen-

sive, especially in the mountain sections, the showing for the Southwestern group is not as good as that of the Northwestern. Here is a table giving the percentage of operating expenses to gross earnings for the year 1889 of all the various groups:

	PER CENT.
New England group	72.01
South Atlantic group	71.91
Southwestern group	71.88
Central Northern group	68.16
Middle group	66.39
G. & M. V. group	65.92
Pacific group	64.61
Northwestern group	64.57

This calculation, viz., the percentage of the gross earnings which are consumed in operating expenses, is the standard by which the ability and economy of the management of a given road are most commonly measured. If the percentage is too great it shows that the management is either paying too much to get its business, or else is wasting money in handling it. And we can readily see how important this showing is, by making a comparison of the above figures.

We will not take an extreme instance, but will take the Central Northern group, the 68.16 per cent. of which is approximately half-way between the lowest proportion, 64.57, and the highest, 72.01. The difference between the figures of the Northwestern group, 64.57, and those of the Central Northern group, 68.16, is 3.59 per cent. The gross earnings of the Northwestern group were $84,056,412; and 3.50 per cent. of that is $2,941,974. If the managements of the Northwestern roads had spent in operating expenses, therefore, as large a proportion of their gross earnings as did the managements of the Central Northern group the item of operating expenses would have been increased by $2,941,974, which must have come from somewhere else. The stockholders would have suffered first. But the gross amount of money paid in dividends on stock of the Northwestern group in the year only amounted to $1,985,531. So that, to make up that $2,941,979, that poor one-half of one per cent. which was paid as dividends would have had to be entirely wiped out, and the companies would still have been nearly a million dollars—or $956,443—short of meeting their expenses. In which case somebody must have gone into bankruptcy.

Now from these figures there are two conclusions of fact to be drawn.

In the first place this extraordinary economy of operation in the Northwestern lines is only attained at the cost of great hardship to the employes. To make the above showing, forces had to be reduced, wages cut and hours shortened to an unparalleled degree. This point is of so much importance that it will be referred to again, but meanwhile it should be noted that in the execution of these economies the numbers of track-men and yard-men and train-men have been so reduced that what is known as the "danger line" of operation has long ago ceased to be regarded, and inasmuch as the safety of travel is thereby imperilled, the general public is hardly less interested in this than are the employes themselves.

The second fact to be observed is this: We have seen that with a smaller indebtedness and greater economy in operation, the railroads of the Northwest are still less productive as an investment than those of any other portion of the country. And when this question of the productiveness of the railroads is regarded by outside capitalists, as it is regarded, as the best indication of the general prosperity of any section of the country, this showing is one which cannot do anything but very seriously injure the reputation of the Northwest in the financial circles of the East and of Europe.

DIFFERENT WESTERN STATES COMPARED.

In the first edition of this pamphlet the author said: "A word should be said here on the difficulty of arriving at a correct statement of earnings, expenses or dividends on lines within any given state. Of course a railroad company, operating a system in, perhaps, half a dozen different states, does not and could not keep the accounts of the lines in each state distinct from the lines in the other states. For the purposes of state commissions, therefore, it is customary to make an approximate division of these matters on a mileage basis. That is to say that the company reports upon its whole system. That may be 5,000 miles in length. Of this amount perhaps 1,000 miles or one-fifth of the whole may be within the state limits. To obtain the proportion of earnings, expenses and dividends on the lines within the

state, the whole earnings, expenses and dividends are divided by five. The result is, of course, only approximately accurate, and sometimes may give rise to very considerable misrepresentation.

"An instance of this may be seen in the statement of dividends and interest on Minnesota lines given above. The entire amount, the state commissioners' report shows, paid in dividends on lines within the state in 1887 was $2,070,000. This was figured on a mileage basis. Of this sum nearly $400,000 was estimated as paid by the lines of the Chicago & North-western Railway Company in Minnesota. As a matter of fact the lines of the Chicago & North-western Railway in Minnesota were absolutely unproductive. The dividends and interest paid by that company in 1887 were all earned on other parts of its system, while the Winona & St. Peter showed an actual deficit (short of paying operating expenses and fixed charges) of $450,000. This had to be made up out of the surplus earnings on other parts of the company's line, so that, instead of the people of Minnesota being taxed to pay $400,000 of dividends on the company's lines, the people of other states had to come forward and make up the $450,000 of the carrier's expenses which the people of Minnesota failed to pay to the carrier for conducting their business.

"This would make a very material difference in the figures given above. It would increase the amount of non-productive stock on Minnesota lines and would decrease the rate of return below 3.06 per cent. But the mileage basis is the one which by common consent is followed in various states, though with a full recognition of its inadequacy; and it seems to the writer better to accept the official figures of the state commission, even when obviously open to criticism, than to compile his own statistics, which would certainly be criticised, whether accurate or not."

Since the above was written some of the state commissions, among them being those of Minnesota, Nebraska and Iowa, have in large measure abandoned the plan of attempting to so apportion the stock or debt or dividends between the particular portions within and without the limits of a given state. The figures now are given "for the whole lines." Similarly *Poor's Manual* has abandoned many of the tables showing results according to states which appeared in earlier editions. The plan of division into groups of lines, bunched according to geograph-

ical location, is unquestionably the most natural and scientific. Results so arrived at are certain and of practical comparative value. Results based on arbitrary apportionments by state lines, while interesting and reasonably approximating the truth, could never have the positive and demonstrable exactness which attaches to the figures that we have quoted so far.

It will doubtless suggest itself to the reader that the practice of enacting widely different statutes relating to the regulation of common carriers in neighboring states is equally absurd. The endeavor to operate the two ends of one line so as to conform to two entirely different sets of state regulations is not only unnecessarily harassing to a railroad manager, but also compels injustices and inequalities in the treatment of the public on opposite sides of the dividing boundary.

The annual conventions of State Railroad Commissioners which are now being held at Washington under the patronage of the Inter-state Commerce Commission, will, in time, do a great deal towards making uniform the legislation of different states.* But what is most needed is a more intelligent understanding of the railroad question by state legislators.

Statistics can be compiled *ad libitum* from the reports of the various state commissions to show that the condition of the railroads is deplorable in each Western state. But when the condition of all the Northwestern lines is as set forth above, it is needless to say that those parts of them which run through Iowa and Minnesota and Nebraska and Wisconsin are all alike unremunerative property. Certain results can be abstracted from these state reports which have a value of their own, and

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*In the first edition of this pamphlet attention was called to the urgent advisability of having the same form of annual report adopted by the various state commissions and the Inter-state Commerce Commission, and also of making the fiscal years end at the same date. The following extract from a letter from the statistician of the Inter-state Commerce Commission to the writer, under date of September 25th, 1890, will show how much progress has since then been made in these directions: "We have supplied direct from this office, similar to the Minnesota form sent you (completing the forwarding on 23d inst.), state editions of the 1890 form to eighteen states, namely, Alabama, Arkansas, Connecticut, Florida, Georgia, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, North Dakota, Ohio, Oregon, South Carolina, South Dakota, Vermont and Virginia. It should be said further, it is understood in this office, that seven other states, namely, California, Illinois, Massachusetts, New York, Pennsylvania, Rhode Island and Wisconsin, though not furnished by us with the 1890 form, are this year using forms similar to that of the Inter-state Commerce Commission, thus making practically twenty-five states in which the inter-state form has been adopted out of twenty-nine states having railroad commissions."

these the author has endeavored to state as concisely as possible.

For comparative purposes the following table from the Interstate Commerce Commission's* report may be interesting:

SUMMARY OF RAILWAY MILEAGE IN THE UNITED STATES BY STATES AND TERRITORIES.

State or Territory.	Mileage on June 30, 1889.
Alabama	3,034.57
Arkansas	2,156.11
California	4,250.27
Colorado	4,127.42
Connecticut	1,006.13
Delaware	305.69
Florida	2,282.82
Georgia	4,094.43
Illinois	9,829.48
Indiana	6,045.87
Iowa	8,320.39
Kansas	8,770.01
Kentucky	2,522.06
Louisiana	1,535.25
Maine	1,314.34
Maryland	1,222.82
Massachusetts	2,072.76
Michigan	6,783.59
Minnesota	5,340.46
Mississippi	2,266.90
Missouri	5,924.05
Nebraska	5,012.00
Nevada	927.87
New Hampshire	1,102.06
New Jersey	1,982.66
New York	7,680.11
North Carolina	2,654.54
Ohio	7,797.15
Oregon	1,503.61
Pennsylvania	8,214.35
Rhode Island	214.63
South Carolina	2,118.41
Tennessee	2,576.18
Texas	8,347.84
Vermont	1,012.54
Virginia	2,821.11
West Virginia	1,231.03
Wisconsin	5,384.63
Alaska	....
Arizona	1,096.83
Dakota	4,472.85
District of Columbia	30.57
Idaho	844.70
Indian Territory	999.55
Montana	1,821.05
New Mexico	1,324.51
Utah	1,124.07
Washington	1,356.82
Wyoming	901.74
Total	157,758.83

*Statistics of Railways of the United States, pp. 10 and 11.

The following brief statements of the situation in the different states are taken from the latest official reports of the respective state commissions, all of which, with one exception, are for the year ending June 30th, 1889:

MINNESOTA.*

According to the report of the Railroad Commissioners of seventeen companies operating lines of railroad in the state of Minnesota during the year 1889, eight companies showed deficits and failed to meet their fixed charges by the aggregate sum of $2,555,768; one company was in the hands of a receiver; three companies earned their expenses, but failed to pay any dividends, and the remaining five only paid dividends.* The amount of these dividends paid on the lines in the state was $1,564,000, which is almost one million dollars less than the deficit of the other lines, or $991,700.

As a matter of fact, however, the results were even worse than this, as one of the companies credited with a dividend—viz., the Chicago & Northwestern—paid that dividend with money earned on lines outside of the state. Its lines inside the state limits were operated at a loss of nearly half a million dollars, so that the real results of the year's operations were nine companies (not counting the one in the hands of a receiver), showing an aggregate deficit of three million dollars; and only four companies paying dividends, aggregating a little over one million dollars.

IOWA.†

Of thirty-four companies making reports of operation of lines in the state of Iowa, seven companies paid a dividend in the year ending June 30, 1889, and twenty-seven failed to do so. Four companies were operated by receivers, and sixteen others showed deficits in the year's business. The aggregate shortage of the sixteen companies was a little over nineteen hundred thousand dollars,—$1,914,509. The aggregate of unproductive stock (i. e., stock on which no dividend was paid,) on the whole lines of the companies reporting, was $117,695,574.

The number of stockholders of all lines was 15,350, of whom only 253 resided in Iowa.

* Report of the Railroad and Warehouse Commission of the State of Minnesota, for year ending June 30th, 1889, pages 7 and 8.

†Report of the Railroad Commissioners of Iowa for the year 1889.

As in the case of other western states, the companies which paid dividends were the large corporations operating systems draining immense territories and with terminals in Chicago and other large cities. The seven companies were—the Chicago, Rock Island & Pacific; the Chicago & Northwestern, with other parts of the same system, viz., the Chicago, St. Paul, Minneapolis & Omaha, and Sioux City & Pacific; the Chicago, Milwaukee & St. Paul; the Chicago, Burlington & Quincy, and the Dubuque & Sioux City, (Illinois Central system). No company which had to depend on Iowa business alone, succeeded in paying a dividend.

The average of capitalization and debt per mile of all roads operating in Iowa, was $38,069, as against $55,898 per mile as the average for the whole United States. The attitude of the state authorities and railroad commissioners of Iowa towards railroads is too well known for it to be necessary to remark here that the commissioners do not incorporate in their report anything which might tend to expose the forlorn condition of the railroads of the state, unless they are compelled to do so. Such admissions as they do make are evidently sadly against their will; but the following extracts are eloquent:

"The total number of persons employed on the roads in Iowa, estimating last year for the roads not reporting, was 24,622; the amount paid (as wages), $14,212,590.27. Last year the number was 30,236; the amount $15,619,417.16. The causes that led to this reduction were, diminished tonnage on inter-state business, and the reduction of expenses resulting from the reduction of the number of trains, and the economies introduced to meet the conditions" (p. 12).

"The reduction of expenses (i. e., operating expenses for the year) of $689,197.75, which is partly due to a decrease of passenger train service, while it resulted in some instances in public inconvenience, seems, on the whole, to have been an advantage to the railroads from a financial standpoint" (p. 9).

"The total number of miles of railroad in operation in Iowa, * * * * * is about the same as last year, although some additional road has been constructed" (p. 4). "The Sioux City & Northern railway company has constructed a road to the north line of the state. This, however, was not in operation

June 30, the end of the fiscal year. The fact is stated here as evidence that there are parties who are still willing to invest in building roads in the state" (p. 13).

There is pathos in this anxiety of the commissioners to put the best face upon the situation, going outside of the period covered by their report to find evidence (and that in a line which was built only as part of the whole plan of development of the Great Northern system, and which only as an accident enters Iowa territory) to prove that there are "parties who are still willing to invest" in railroad properties in Iowa.

NEBRASKA.*

Of eleven railroad companies operating lines in the state of Nebraska, in the year ending June 30, 1889, three companies paid a dividend, and eight companies failed to do so. Of those eight companies, three showed deficits on the year's operations, the three deficits aggregating $875,329. The total amount of unproductive stock, i. e., stock on which no dividends were paid during the year, on the eight roads above-mentioned, was $128,107,150. The average of capitalization and debt of all of the roads operating lines in the state was $47,100 a mile.

But, perhaps, the best evidence as to the earnings of the Nebraska railroads is furnished by the Board of Transportation, not in its annual report, but in a special report made in June last.

A resolution had been adopted by the board declaring that "rates for transportation should be adjusted and regulated to afford no more than a reasonable rate of income upon the capital already invested in the construction of the roads, and, proceeding, the secretaries were instructed to investigate the relations existing between the earnings of the Nebraska roads and their cost of construction, and so determine and afford conclusions as to the need of alteration in the existing tariff rates." Acting under this resolution, the secretaries of the board proceeded to make investigations. As the report says:

Your secretaries were of the opinion that judgment upon the matter in hand should be in no wise influenced by the brawling assertions of designing agitators, or by the general denials ever forthcoming from the railroad representatives. Equally confident was the feeling that no consideration

* Nebraska Board of Transportation, Annual Report, 1889.

for individual or party political results should weigh in the judgment. The matter was one of figures. The railroads cost certain amounts, different roads varying in cost under varying conditions. Certain amounts have been expended since their construction for bettering their condition in conformity with the needs of a gradually increasing traffic. The total of the two items—first cost and betterments—represent, for all practical purposes, the cost of all roads placed in operation within a half dozen, or say ten years preceding. * * * * The cost of Nebraska roads, in conjunction with the earnings therefrom, after deducting the cost of operation, enables a determination of the annual rate of income. As to the allowable rate of income there is considerable diversity of opinion. It is apparent to the fair minded that the management of a common carrier should not be hampered by the state in impartially directing the operations of their roads to the end of earning a reasonable return upon the cost, and, in addition thereto, a sum sufficient to keep the roads in good and safe repair, and to make those additions from time to time required for the convenience of the public. * * * Your secretaries are of the opinion that five to six per cent *per annum* is a reasonable rate of income for the purposes set forth, and that seven is not extortionate or excessive for the period intervening from the time of beginning operations on a newly constructed road in a country but partially developed to that time when an increase of traffic, to a point somewhere near the road's capacity, has brought about the development of the road to a first class condition.

On this basis the board set to work to find whether or not the railroads were earning any such sums in excess of a reasonable income as would justify a reduction in rates. They made enquiries as to the cost of the most prosperous lines, and they obtained figures which, (with the exception of the case of one line which, the board believes, reported its indebtedness instead of its cost,) they have accepted as a sufficiently fair statement of the actual investment upon which a proper interest may be regarded as a reasonable income.

They found that the C., St. P., M. & O. Ry. earned 2.3 per cent on its cost; that the Union Pacific leased lines earned less than 2 per cent on their cost, and the Burlington lines 5.09 per cent on their cost. These three roads include the greater portion of all the mileage in the state. On the results so arrived at the board decided that the roads were not earning more than a reasonable income, and that a reduction of maximum rates was not justified by the conditions.

THE DAKOTAS.*

Of fourteen companies reported as operating lines in Dakota

*Railroad Commissioners of the Territory of Dakota, Fifth Annual Report for year ending June 30th, 1889.

(before the territory was divided into two states), five companies paid dividends in the year ending June 30th, 1889, and nine companies did not. The dividend payment was equal to 1.7 per cent on all stock; the total amount of unproductive stock (i. e., stock in all the lines of the companies paying no dividends,) was $139,757,577. The five companies which paid dividends were all companies owning long inter-state lines, viz., the Chicago & Northwestern, the Chicago, St. Paul, Minneapolis & Omaha, the Chicago, Milwaukee & St. Paul, the St. Paul, Minneapolis & Manitoba, and the Dubuque & Sioux City.

KANSAS.*

Of twenty-eight companies reporting lines of railroad operated in the state of Kansas in the year ending June 30, 1889, five companies only paid a dividend and twenty-three companies failed to do so. Of those twenty-three one was in the hands of a receiver, and eighteen others show deficits aggregating $2,875,673! Of these eighteen companies, thirteen not only showed a deficit of earnings below expenses and fixed charges, but failed to earn their operating expenses alone, setting taxes and interest on bonded debt out of the question.

The total amount of stock on the lines of the twenty-three companies which failed to pay a dividend was $173,507,736.

The five companies which paid dividends were the Atchison, Topeka & Santa Fe, the Chicago, Rock Island & Pacific, the Kansas City, Fort Scott & Memphis, the Missouri Pacific and the St. Louis & San Francisco.

The average of capitalization and debt per mile of the companies operating lines in the state was $49,500, against the average of $55,898 for the whole United States.

MICHIGAN.†

Of twenty-eight companies operating lines in the state of Michigan in the year 1889, ten companies paid a dividend on their capital stock, and eighteen failed to do so. Fifteen companies out of the eighteen carried forward to the year 1890 debit balances aggregating $4,861,654.71.

*Seventh annual report of the Board of Railroad Commissioners of Kansas, 1889.
†Report of the Railroad Commissioners of Michigan, 1889.

There were 6,411 miles of railroad in the state, with a capitalization and debt of $50,178 per mile. The stock was held by 15,295 stockholders, of whom only 106 resided in the state.

WISCONSIN.

Of twenty-two companies making reports of lines operated in the state of Wisconsin, five companies paid a dividend in the two years, ending June 30th, 1888,* and seventeen companies failed to do so. Of these seventeen companies, nine show a deficit (i. e. their earnings for 1888 were insufficient to meet their expenses for the same year), the aggregate amount of the eight deficits being not quite two million dollars, viz., $1,994,518.03. The total amount of stock in the whole lines of the companies which failed to pay any dividend was $150,538,328.17.

The five companies which paid dividends were the Chicago & Northwestern, the Chicago, Milwaukee & St. Paul, the Chicago, St. Paul, Minneapolis & Omaha, the Milwaukee, Lake Shore & Western, and the Prairie du Chien & McGregor. The first three have already been mentioned more than once as contributing a large part of the dividend payments in other states. Of the remaining two, the Milwaukee, Lake Shore & Western paid on dividends $460,000 on a total capital stock of $7,000,000, or 0.65 per cent. The Prairie du Chien & McGregor Railway is a pile pontoon bridge across the Mississippi river between Prairie du Chien, Wis., and North McGregor, Iowa. The cost of the bridge was $100.000, which is represented by $100,000

*The Railroad Commissioner of the state of Wisconsin makes a biennial report. The report for the two years, ending June 30th, 1890 is promised (in a letter from the Commissioner to the author) in December of this year. The figures given here are from the third biennial report for years ending June 30th, 1888. The report is a pleasant contrast in its tone to the reports of Iowa and some other states. The Commissioner is moderate and careful in his statements and conservative in his point of view. The relations of the state of Wisconsin towards her railroads are pleasanter than those of any other Western state. The state made an experiment in drastic anti-railroad legislation some years ago, when the Potter Law (similar to the present Iowa and Minnesota statutes) was enacted. It was quickly repealed however, and two years ago, when a similar bill was introduced into the legislature by Mr. H. A. Taylor, since appointed U. S. Commissioner of Railroads, the people of the state protested very strongly against its passage, and it was hopelessly defeated. The state certainly does not suffer by its attitude. It has less friction and less litigation with the railroads than any other Western state. It receives from the companies, who pay without a protest, something over one million dollars a year in taxes, under a law providing for a graduated tax on gross earnings. The average freight rate per ton per mile in the state was 0.96 cents in 1888, and the Commissioner of Railroads estimated that "the sum of $17,328,161 are paid to labor in the state of Wisconsin" by the railroads alone.

capital stock. In the year 1888, the property earned a surplus of $13,665 over expenses; but the forthcoming report of the commissioners will show that, in the year 1889, there was a deficit of $15,873. It also failed to pay a dividend in the year 1887. With the exception of the 0.65 per cent. paid by the Milwaukee, Lake Shore & Western, therefore, the only railroad properties in Wisconsin which can be classed as paying properties are the lines of the three companies first named above.

The mileage of railroads in Wisconsin was 5,278.25 miles, with a capitalization and debt of $42,216 a mile.

MISSOURI.*

In the year 1889 there were forty-eight companies operating lines in the state of Missouri. Of these the commissioners say (see p. 9): "Ten companies earned dividends on their stock, some of the dividends being paid only on portions of stock. Thirty-eight companies earned no dividends." Ten companies show a deficit of earnings below expenses. Three companies were in the hands of receivers. The average of stock and debt on lines in the state was *$55,606 a mile. The amount of stock on all lines of the companies operating in the state which failed to earn any dividends was $164,040,800. This does not include that portion of the stock on which no dividend was paid of companies which did pay dividends on some portion of their stock, as mentioned above.

RESUME.

There is one further statement which should be made in regard to these figures of the different states. Attention has already been called to the fact that it is almost without exception only the large inter-state lines operated by strong companies that pay any dividends. In many cases the same company is counted in two, three or even four different states. Taking the seven states of Iowa, Minnesota, the Dakotas, Wisconsin, Nebraska and Kansas, collating and comparing the different reports, we find that there are in all ninety different companies owning lines in them. Of these ninety companies only fifteen paid dividends

* Report of the Railroad and Warehouse Commissioners of Missouri for the year ending Dec. 31, 1889.

in the year 1889, while the whole stock of all the other seventy-five was entirely unproductive.

In the year 1888, out of 650 operating companies * in the United States, eighty-three paid dividends and 567 companies failed to do so.

Now, in connection with this fact, which stands out so conspicuously, viz., that only the long lines and strong systems can earn dividends—there are certain considerations which must be noticed.

In the first place, paradoxical as it may seem, this state of affairs is brought about under pressure of legislation which is really directed chiefly against the long lines and not so much against the lesser ones.

Through rates and the rates on longer lines necessarily affect a very much larger number of people than can any individual local rates. The popular pressure for their reduction is correspondingly greater; and legislation has consistently been aimed primarily at the reduction of through rates and joint rates. But it is a fact with which railroad men are familiar, though legislators do not appear to be so, that a reduction of rates, or of a certain class of rates, on any one line will necessarily and almost immediately compel a similar reduction on all lines in that territory. For this reason the laws which have been enacted in some states graduating maximum rates by a classification of roads according to earnings are entirely futile. Though a railroad, which only earns, say $2,000 a mile, gross, may be permitted by law to charge ten cents for a service for which another road, which earns $3,000 a mile, gross, is only allowed to charge five cents, yet this permission is, in practice, almost invariably useless to the former road. Rates in any territory necessarily seek the same level and the lowest level. If one road is only charging five cents for a given service, other roads in the same territory, even when not in direct competition, must come to the same charge. On this same principle, under existing commercial and legislative conditions, anything which depresses rates on the through lines and long hauls must similarly reduce rates on the shorter lines and on local business. The small lines have been compelled to adopt the same low schedules as

* Poor's Manual.

the strong systems. And, this condition once reached, the same law applies to railroads as to any other commercial institutions, viz., that when the margin of profits is reduced to a minimum it is only the strong concerns, with the economies which large business and common management make possible, which can stand. The weaker lines, just as the small business houses in similar periods of acute competition and narrow margins, must fail or be swallowed up by the larger ones.

It is obvious that these conditions, operating so powerfully as to forbid any but the fifteen strongest lines out of ninety to earn any profit, would naturally have a tendency to increase the number of such strong lines by extension, by consolidation, by absorption, or by traffic agreements.

CONSOLIDATION AND POOLING.

Those who are by temperament or political conviction antagonistic to the railroads, constantly deny, firstly, that the railroads are failing to earn reasonable profits to-day, and when convicted of error in this, secondly, that if they are so failing, it is their own fault for building too many lines. Anti-railroad legislation, they say, is not the real cause of the present depression.

Of the first of these contentions we believe the facts set forth in the foregoing pages have sufficiently disposed. Whether the anti-railroad laws are responsible for any of the existing conditions does not seem to be the thing which, on the theory of probabilities at least, is arguable. That the laws exist is unquestioned. That their only object is to reduce the earning power of the railroads (or their charges, which is the same) is equally certain. That the reduction has actually taken place and continues to manifest itself wherever these laws are most vigorous and most actively enforced, is also evident. And when we see a man shoot at a duck and immediately afterwards find that duck dead, it is not an unreasonable conclusion to assume that it was the man who killed it.

Finally, as to whether the railroads themselves are at fault for building too many lines, it is an undeniable and very unfortunate fact that in certain sections of the country, and between certain points, there are more lines than are needed or than the traffic warrants. But a moment's reflection will con-

vince any one of two things. (1) That the last person who is likely to desire to build, or who should be held accountable for instigating the building of a competing line, is the railroad company with whom the new line comes in competition; and (2) That the only power which can prevent over-construction is the people themselves, through the legislatures, through boards of commissioners or through the courts. Every railroad company in existence would be profoundly grateful if it was to be guaranteed against competition and the invasion of its territory. But the same people, the same towns, as clamor most loudly for lower rates will most enthusiastically welcome and promote any scheme for building a competitive line, which will divide the traffic and make reduction of rates more than ever incompatible with reasonable earnings.

Now, until a few years ago the railroad companies had done their best to protect themselves against the results of this excessive competition by what is known as "pooling." The pool was only moderately successful as a device for obtaining stable rates; but it *was* moderately successful. The Inter-state Commerce Act, however, forbade pooling, and it is to that one provision, more than any other existing piece of legislation, that the disastrous conditions of the last few years are due. There is, we believe, no competent authority who regards that provision of the Inter-state Commerce Act as a wise one, and who would not much prefer, for the public's sake, to see pools legalized, subject to the regulation and supervision of the Inter-state Commerce Commission or some other properly constituted body. But the general public are not yet prepared to be converted on this point. The very name of "pool" is evil sounding in their ears and of itself provokes antagonism. But there is a force now at work which, it is to be trusted, will, before long, work this conversion. If not, the people will regret it.

In a recently published circular letter, Mr. Aldace F. Walker, chairman of the Inter-state Commerce Railway Association, says that at the rate at which earnings are now being reduced, "Railway managers will soon be chiefly receivers." He then says:—

"The most certain method of escape from the net in which the roads are thus enmeshed would be to physically terminate competition. Consolidations might be made which would pres-

ently reduce our country to the condition of France, with its six non-competitive railway companies, each exclusive in its territorial field. This is not what the public expect or desire. The course has been entered upon, however, and progress would be rapid but for the peculiar difficulties in the way of each individual transaction."

We believe that Mr. Walker is right in assuming that the public does not desire to see such consolidation as he indicates. But there is no possible room for question that it is just that thing which is coming, and coming with a rapidity which few railroad men, to say nothing of the general public, appreciate.

Some idea of this rapidity may be gained from the statement that since June 30th last (which is to say, in five calendar months,) 8,000 miles of railroad, formerly independent lines, have become merged in other systems, which is 5 per cent of the total railroad mileage of the country. But on June 30th nearly one-half of the railroad mileage was already included in ten large systems. More than one-tenth of all the independent lines of the country have therefore been absorbed in the last five months. Nor does the public, as the writer believes, at all grasp the significance of the rumors of vast consolidations of Western railroad interests which have been so conspicuous in every issue of the daily papers for the past few weeks.

To bring these figures nearer home and to take a local instance which will be easily understood, we will look at the situation in Minnesota. When the first edition of this pamphlet was published, less than two years ago, there were ten companies operating lines in this state which owned more than 250 miles of road each. They were

1. The Northern Pacific.
2. The St. Paul, Minneapolis & Manitoba.
3. The Chicago, Milwaukee & St. Paul.
4. The Chicago & Northwestern.
5. The Chicago, St. Paul, Minneapolis & Omaha.
6. The Chicago, Burlington & Northern.
7. The Wisconsin Central Lines.
8. The Soo Line.
9. The Minneapolis & St. Louis.
10. The Chicago, St. Paul & Kansas City.

Since then the following changes have taken place:

1. The Northern Pacific has leased the entire Wisconsin Central lines.

2. The St. Paul, Minneapolis & Manitoba has been consolidated with the Eastern Minnesota, Montana Central and other roads into the Great Northern Railway Line.

3. The Chicago, Milwaukee & St. Paul last month absorbed by purchase the Milwaukee & Northern.

4 and 5. The Chicago & Northwestern and Chicago, St. Paul, Minneapolis & Omaha have formed a close traffic alliance with the Union Pacific.

6. The Chicago, Burlington & Northern has been absorbed, by purchase, into the Chicago, Burlington & Quincy system.

7. The Wisconsin Central, as already stated, is operated as a branch of the Northern Pacific.

8. The Soo Line is now in process of amalgamation or conjunction of management with the Duluth, South Shore & Atlantic, the control of both being now in the hands of the same parties.

There remain (9) the Minneapolis & St. Louis, and (10) the Chicago, St. Paul & Kansas City. The former of these is already a part of the Rock Island system, and is moreover in the hands of a receiver, so that change has been impossible, and there is therefore only one company, viz., the Chicago, St. Paul & Kansas City, out of the ten which were in Minnesota less than two years ago which has not since then played, as a principal, a part in some large consolidation, merger or amalgamation.

As has been said, neither railroad men nor the public realize, as they hear of the individual movements, how rapidly the process of consolidation is going on. Possibly the above showing may help to place the situation in a clearer light. Possibly it will help the public to understand what it is that is being done by the present legislative efforts to enhance competition by the prevention of pooling—what sort of competition it is that is being promoted.

OVER-CAPITALIZATION.

On the subject of over-capitalization so much has been said by the political opponents of the railroads, and so much has been written by good authorities on the railroad question, that

it is difficult to condense any comprehensive statement on the subject into reasonable limits. Certain facts can however be definitely stated.

There have been in the past some conspicuous instances of gross and utterly dishonest inflation of the capital stock of railroads. Colossal fortunes were by these means amassed, and the methods of operation in those cases which have been exposed have cast discredit upon all railroad financiering.

On the other hand it is just as certain that the railroad properties of the United States to-day represent an actual value considerably in excess of the aggregate capital stock and funded debt. In part, but in comparatively small part only, this is due to the increase in the value of lands held by the companies, whether granted by the government or purchased for terminal purposes in cities. But it is difficult to understand why the companies are not as justly entitled to this increase in values which they themselves have created, and which they built their railroads chiefly with the deliberate purpose of creating, as is the farmer or investor in city property entitled to the increase in value of his land which the railroad company has created for him.

But far more important factors in the immensely increased value of railroad properties to-day are two other processes. One of these is the constant elimination of stock and wiping out of debt in foreclosures and reorganizations. Complete statistics on this point are promised by the statistician of the Inter-state Commerce Commission, but meanwhile it is recognized by students of the railroad problem (and figures unlimited are put forth and might be quoted here to prove it) that the total amount of liabilities which have thus been wiped out is largely in excess of any possible original over-capitalization.

The most careful compilation of records which we have seen on this subject* covers a period of fourteen years only, viz., from 1876 to 1889, inclusive. In these fourteen years the amount of capital stock of railroads so "wiped out" was $1,264-684,715, or an average of ninety million dollars a year. If the records could be carried back for twenty-five years, it is certain

* Annual Report of the Directors of the Chicago & Alton Railroad, 1890. The figures compiled from the records of the *Railway Age*.

that it would be found that over $2,000,000,000 of stock had been thus disposed of,—or about one-half of the total capitalization of all the railroads of the country to-day. The number of railroads sold under foreclosure in the fourteen years was 448.

The second process is the terribly expensive annual "betterment" of the railroads, including in that term the sinking of capital in improvements of track, in building spurs and sidings, in erecting new stations and bridges, and renewing and replacing old wooden bridges with iron and stone structures, and in the purchase of cars and locomotives. There are one million cars in the United States to-day and thirty thousand locomotives. The value of these is—or the cost to the railroad companies has been—just about $1,000,000,000—nearly one-eighth of the total capitalization and debt of all railroads being thus represented by the equipment alone.

The "cost" of the railroads of the country, as reported by the companies themselves, shows an average of two to three thousand dollars a mile less than the total of capitalization and debt. The valuation of the properties to-day is, on the average, several thousand dollars a mile in excess of the capitalization and debt. It is easy, of course, to say that the mere fact that the railroad companies themselves make the reports of cost, and make them knowing that there is no one who can authoritatively dispute their statements, at once discredits the reports and makes them unworthy of credence. At the same time the internal evidence is strongly in favor of the accuracy of these reports.

We have seen what an immense amount of money is represented by the equipment—the motive power and rolling stock—of the country. We know what colossal expenditures a single company will sometimes make to obtain entrance to or terminals in one large city. We are familiar with the costliness of individual railroad bridges. We can guess at the vastness of the sums which have been spent in tunnelling and other engineering work in the mountain regions. When a piece of track is taken from the hands of a contractor or construction company, up to which time it may have cost the railroad company not more than $15.000 a mile, or even, in rare instances, less than $10,000 a mile, the real building of the road is only begun. For years

afterwards work has to go on on what is really the construction, and for years capital is being sunk in it.

It is a curious fact that in the recent Minnesota rate cases, wherein the decision of the United States supreme court has become so famous, it became necessary or expedient for one of the companies to show, if possible, that its road had really cost the money represented by its stock and debt; whereupon the original vouchers for every dollar of (and for rather more than) the amount of those liabilities were put into court in evidence, showing exactly how much of the money had been paid for locomotives and to whom, and how much for track and to whom, and so on through every item of construction.

The statistician to the Inter-state Commerce Commission, after presenting certain statistics, remarks:* "A comparison of the percentages presented in the above tables tends to increase the confidence with which one regards statistics of railways; for if there were general carelessness in reporting on the part of the carriers, or if unstable rules were followed in keeping accounts, there could not be such uniformity in results as the above tables disclose."

The Railroad Commissioner of Wisconsin, in his last biennial report,† comments briefly on the question of whether the cost reported by the railroads represents the actual cost of the properties, and explains why, with the dishonest methods once in vogue, it is not easy now to ascertain how much actual money was originally put into the older lines. "But roads are not built thus to-day in Wisconsin. The most of them are built with cash, and the managements have great care over expenditures. The cost of a road built and equipped to-day can become known with as much accuracy and certainty as can any other great building enterprise."

Distrust of railroad financial statements and belief in the enormous volume of fictitious capital in railroads are always found flourishing most vigorously in minds furthest removed from any practical acquaintance with railroading. They are most luxuriant in the agriculturalist and the country politician. They wither (or, to change metaphors, they contract like the

* Statistics of Railways of the United States. Page 32.

† Report to June 30th, 1888. Page 10.

pupil of the eye, as the light of information shines upon them), as those in whom they are rooted acquire knowledge. In the real "students of the railroad problem," they exist not at all. Unfortunately, the men who are most competent to speak on railroad statistics are either men in official positions, who have not the courage to speak plainly, or railroad managers and railroad presidents, whose evidence is inadmissible here.

In view of all the foregoing facts, however—in view of the enormous costliness of all those things which combined form the railroad properties of the country—in view of the unquestioned fact that the present value of the railroads far exceeds the capitalization and debt, and that they could not be duplicated for approximately those amounts to-day—in view of the fact that incredulity (which is only credulity of the negative proposition), exists in men in proportion to their lack of information—in view of the fact that the railroads of every other country of the world have cost, *actually cost* (for the expenditures there are supervised by the governments) from 30 per cent. to 300 per cent. more than the railroads of this country—in view of all these facts, we say, it does not seem that the figures of capitalization in this country, less than $60,000 a mile, are or can be excessive.

There is not one railroad man who believes that they are.

THE RAILROAD EMPLOYE.

We have already briefly touched upon the effect which the present situation has upon the railroad employe. It is not necessary here to dilate upon the fact that the relations between employer and employe on the western railroads have recently been far from harmonious. The daily papers, with their daily details of strikes and "troubles" of all kinds, state this fact with sufficient clearness. And the truth is that the railroad employe is suffering, and has, for the past few years suffered, many hardships. It is not that the average of wages paid by railroad companies is not fairly good. It is good. Where the employe suffers chiefly is in uncertainty as to the continuance of his employment. In the constant struggle to cut down expenses to conform to diminishing earnings, the railroad companies of the Southwest and Northwest have, during the last three years, been compelled to practice economies which, ten or even five years ago,

expert railroad men would have pronounced impossible. There has long been recognized, though never clearly defined, what has been called the "danger line" in the number of employes to be employed in the operation of a given length of road and the handling of a given train service or tonnage movement. For these last few years this "danger line" has been disregarded, obliterated, forgotten. The permanent force of the railroads has been reduced. And even that force is subject to constant invasions and temporary reductions. As soon as work in the shops begins to grow light, hours of labor are reduced and the wages are diminished in proportion. On the smallest pretext of fair weather and security from fear of floods or snow storms, track forces are cut down to the lowest point. The smallest diminution in the volume of traffic is announced to the men by the "laying off" of them in blocks. And these intervals of idleness, shortened hours and uncertainty of employment are worse than regular work at lower wages would be. But the volume of business on the railroads ebbs and flows. At times they must have full forces; at others they need not, and they cannot afford to keep one superfluous man on the pay-roll.

In the state of Iowa there were in the year 1889, (see page 12, Commissioner's Report, 1889), 5,594 fewer employes than in the year 1888. The railroad mileage was about the same.

In the state of Minnesota there were in the year 1889, (see page 10, Commissioner's Report), 703 fewer employes than in the year 1888. The railroad mileage had increased by 260 miles. The average number of employes to every 100 miles of road in the whole United States is 459, (see I. C. C. Statistician's Report, p. 16), so that there should have been an increase of about 1,200 instead of a decrease of 700. The number of locomotives to be operated and cars to be handled had correspondingly increased.

On all the lines of the companies operating in the state of Minnesota, there were 8,382 fewer employes in the year 1889 than in the year 1888.

And these figures of the reduction in permanent force show, as has been said, only a small part of the real hardship which has been inflicted on the railroad employes by the reductions in rates and earnings.

The railroad employe does not entirely understand the situation. He knows that he is badly used; that he has a grievance. He carries his grievance to the company; and the daily papers announce the fact. The officials of the company tell him that they are anxious to do the best they can by him but that they can do no better because they have no money to pay him with. The employe then either suffers in silence or he strikes and makes the public suffer. As has been said, he does not yet entirely understand it. He knows that the company has more cars and more engines than it used to have; that the cars and engines seem to be busy. Why then is the company not able to give him work and wages?

The following table* of average freight rates per ton per mile throughout the country for the last seven years may supply the answer:

	CENTS.
1883	1.236
1884	1.124
1885	1.057
1886	1.042
1887	1.034
1888	0.977
1889	0.976

If the rates had been the same in 1889 as they were in 1883, the railroads would have earned $170,000,000 more than they did earn in that year from freight alone. And then there would have been no trouble in keeping pay-rolls full.

The following table also shows the steady decrease in rates on one of the large Western roads† through a series of years. As has been said, the rates on all roads in the same territory are at any given time necessarily about the same, and the figures given in this table would be about the same on every Western railroad:

* Poor's Manual, 1890. P. XIII.

†Report of the Chicago & Northwestern Railway for the year ending May 31, 1890.

FISCAL YEAR ENDING	Average Rate Per Ton Per Mile.	Average Rate Per Passenger Per Mile.
	CENTS.	CENTS.
May 31st, 1871	2.87	3.31
" " 1872	2.61	3.28
" " 1873	2.35	3.16
" " 1874	2.28	3.20
" " 1875	2.10	3.02
" " 1876	1.95	2.85
" " 1877	1.86	2.89
" " 1878	1.72	2.83
" " 1879	1.56	2.79
" " 1880	1.49	2.67
" " 1881	1.47	2.53
" " 1882	1.47	2.52
" " 1883	1.42	2.46
" " 1884	1.31	2.40
" " 1885	1.19	2.38
" " 1886	1.19	2.36
" " 1887	1.10	2.29
" " 1888	.99	2.30
" " 1889	1.01	2.24
" " 1890	.98	2.17

Poor's Manual for 1889 analyzes the rates on thirteen typical railroad lines in the United States for the last twenty-four years, and shows that these railroads received in 1888 only $20.00 for services for which in 1865 they received $100.00—a decrease of 75 per cent.

Of the northwestern companies, whose fiscal year ended with June 30th, 1890, the president of one* company informed the stockholders that that company, during the year had made no attempt to compete for its share of wheat and flour business, as the traffic cost more to haul than it paid. The receiver of another company† announced that for the same reason, his company had gone entirely out of competing for any through business, not even having competitive tariffs in effect.

During the year 1890, *the average eastbound rate on wheat and flour from the Northwest has been 0.3 of a cent,*—three mills per ton per mile. That is to say that one ton of wheat has been hauled three miles for one cent. During the year 1889, the average earnings per ton per mile in the whole country were 0.976 of a cent. On the Pennsylvania Railroad, with its enormous traffic,

* The Chicago, St. Paul & Kansas City Ry.

† The Minneapolis & St. Louis Ry.

the earnings per ton per mile were 0.626 of a cent, and the cost of moving one ton one mile was 0 401 cent.

The above rate on the northwestern lines was therefore less than one-third of the average freight rate of the country; less than half the average rate on the crowded Pennsylvania lines, and even one-fourth less than it actually cost the Pennsylvania Railroad to do its business.

In the Southwest the condition of rates on corn and other staples has been even worse than this.

At such rates it is not easy to see how a railroad company can hope to pay its employes reasonable wages, or keep them on the pay-rolls when business is light.

CONCLUSION.

In conclusion, we have seen

1. That the railroads of the United States have cost less than the railroads of any other country and are capitalized for less.

2. That in spite of this fact the rate of returns earned upon the capital invested is less than in any other country.

3. That in the West the railroads have again cost less and earn less on their investment than the rest of the railroads of the United States.

4. That the average rate of returns on all railroad investments in the country was, in the year 1889, less than 3½ per cent.

5. That in that year over three billions of dollars ($3,300,000,000) of American railroad securities were absolutely unproductive of any revenue.

6. That in the Northwest the rate of dividend payments on all stock was less than one-half of 1 per cent, and in the Southwest that it was less than three-quarters of 1 per cent.

7. That out of ninety railroads in seven states, fifteen companies only paid dividends and seventy-five were unproductive.

We have seen that this condition of affairs is owing to the extraordinary lowness of rates which now prevails, and that under existing legislative conditions the railroads cannot protect themselves or establish rates on a more remunerative basis, except by consolidating.

The holders of the railroad securities number something over one million persons in this country.

The railroad employes of the country number over 700,000 persons.

It is estimated that there are further engaged in allied industries in this country, entirely dependent upon the railroads, from 1,500,000 to 2,000,000 persons more.

We have seen how much hardship is being inflicted upon the holders of the securities by the present conditions. We have seen what injury is being done to the employes. We have also seen certain grave dangers which are threatening the public at large.

Now, supposing for one instant that it is possible that the people, as a whole, are not interested in the welfare of the railroads and their maintenance on a safe basis of operation; supposing, for an instant, that they could look on with indifference, so far as their personal interests were concerned, and see the commerce of the country suffering from insufficient train service, tracks in bad repair, and inadequate equipment; supposing that they do not care if all the lines in the country are absorbed by five or six gigantic systems—supposing all this, and considering only the few millions who are immediately interested, is it, firstly, the part of political expediency to compel these men to combine together, their hands against every man's, for the protection of their rights and their homes; and, secondly, is it the part of justice to deprive them of the returns on their capital and their labor, and to confiscate their property?

Do we need more anti-railroad laws, or do we not?